

MBizM[®] Lean Six Sigma BLACK BELT Accelerated Public Programme



INTRODUCTION

- ◆ The Black Belt Accelerated Course is designed to improve process performance, deliver medium to high impact projects and achieve significant cost savings.
- ◆ Six Sigma Black Belt Accelerated is designed so that people acquire the special skills and knowledge required before leading or taking part in any continuous improvement project.
- ◆ Black Belt Accelerated will effectively use the Six Sigma tools in their organization, with customers and suppliers for achieving business improvement results.
- ◆ Black Belt Accelerated will gain thorough understanding of all aspects of the DMAIC model in accordance with Six Sigma principles.
- ◆ Black Belt Accelerated will gain knowledge of Lean enterprise concepts and will be able to identify non-value-added elements and activities.

Duration = 8 Days

COURSE CONTENT / CURRICULUM

SESSION 1: DEFINE & MEASURE PHASE / 3 Days

- ◆ Introduction & Overview of Six Sigma
- ◆ Cost of Poor Quality (COPQ)
- ◆ Drill Down Tree & Pareto Chart
- ◆ Project Charter Development
- ◆ Teams & Stakeholder Analysis
- ◆ Voice of Customers (VOC) & Kano Model
- ◆ SIPOC & Basic Process Mapping
- ◆ Quality Functional Deployment (QFD)
- ◆ Financial Analysis and Cost Savings
- ◆ Root Cause Analysis (RCA) Tools
- ◆ Cause & Effect Matrix
- ◆ Operational Definition
- ◆ Data Collection Plan
- ◆ Basic Statistics and Sampling Techniques
- ◆ Measurement System Analysis (MSA)
- ◆ Capability Analysis and Sigma Value
- ◆ Graphical & Value Analysis
- ◆ Detailed Process Mapping
- ◆ Fishbone Diagram
- ◆ Failure Modes and Effects Analysis (FMEA)

SESSION 2: ANALYZE PHASE / 2 Days

- ◆ Hypothesis Testing
- ◆ Advanced Statistical Root Cause Analysis tools :
 - Type 1 & Type 2 error, Degree of Freedom, Power and Sample Size, 1 Sample t-Test, 2 Sample t-Test , One way ANOVA, Test of Equal Variance (TOEV), 1 Proportion Test, 2 Proportion Test, Chi-Square Test, Non-Parametrics Analysis and General Linear Model (GLM)
- ◆ Advanced Graphical Analysis
 - Sigma Value / Z-Bench
 - Graphical Tools for Statistics
 - Pareto Charts
 - Box Plots
 - Run Charts
 - Dot Plots

- Scatter Plots
- Matrix Plots
- Histograms
- Time Series Plots
- ◆ Regression Analysis
- ◆ Value Stream Mapping (VSM)
- ◆ Summarising Potential Factors and Potential Solutions
 - Correlation Analysis
 - Multiple Regression
 - Simple Linear Regression
 - Best Subset Regression

SESSION 3: IMPROVE & CONTROL PHASE / 3 Days

- ◆ Generating Improvement Ideas
- ◆ Design of Experiment (DOE)
- ◆ Evaluating & Selecting Best Solutions
- ◆ Solution & Training Implementation Plan
- ◆ Develop & Execute Pilot Plan
- ◆ Lean Enterprise
- ◆ Cost & Benefit Analysis (ROI)
- ◆ Process Control Plan
- ◆ Standard Operating Procedures (SOP)
- ◆ Statistical Process Control (SPC)
- ◆ Best Practice and Replication Opportunities
- ◆ Process Ownership and Dashboards

METHODOLOGY

- ◆ Simulation
- ◆ Activities
- ◆ Own Software
- ◆ Own Books
- ◆ Q & A
- ◆ Group Discussions
- ◆ Case Study
- ◆ Talk over Tea
- ◆ Networking



TRAINERS & CONSULTANTS PROFILE



Dr. Satnam Singh—Experienced LSS Deployment in Europe and India

Dr. Satnam Singh graduated from Liverpool John Moores University (UK) with a Bachelor Degree in Mechanical Engineering. He then furthered his studies at Coventry University in UK and was awarded with a Masters Degree of Science in Engineering and Manufacturing Management. Dr. Satnam then continued to study for his doctorate and was awarded with a PhD in Engineering and Manufacturing Management.

Dr. Satnam has been actively involved in the field of Continual Improvement activities since the beginning of his tertiary education. While accomplishing his Master Degree in the United Kingdom, he had been extensively trained for Lean Systems and Six Sigma whilst working as a Project Manager for a Multi National Corporation (MNC) in the UK for 14 years. During his stay with the MNC in the UK, Dr. Satnam was tasked with the responsibility of promoting and implementing Lean and Six-Sigma within the Organization and throughout Europe. Due to his extensive exposure in Lean and Six-Sigma Management Systems, he was invited by the company's European Subsidiaries to conduct in-house training, project consultations and strategic planning in the area of Six-Sigma implementation. Dr. Satnam known as a Visiting Lecturer in Infosys INDIA.



Mr. Harbans –Experienced LSS Deployment in Samsung & Asia Pacific

Mr. Harbans Singh, is a graduate of University of East London and holds a Bachelors Degree (Hons) in Information Technology majoring in Software Engineering. He is certified as a Six Sigma Black Belt trained by Juran Institute (USA & Korea) under the supervision of Samsung Electronics Asia Pacific. Mr. Harbans has gained over 12 years of working experience both in manufacturing and service industries.

Mr. Harbans has an extensive experience in performing statistical analysis by using statistical software (MINITAB) and various quality tools. Harbans is also involved in Innovating Supplier processes using QDC (Quality, Delivery & Cost) improvement and Improving Supplier Processes by utilising OEE and Lean concepts. Harbans major achievements would include the development of Six Sigma Green Belts and Six Sigma Black Belts within Samsung Electronics Asia Pacific Region. Furthermore Harbans mentored Six Sigma Yellow Belt, Green Belt and Black Belt projects that contributed to total cost savings about USD\$ 15 million during the past 6 years. Harbans also has an extensive experience in developing and conducting Six Sigma Champions Training, Black Belt, Green Belt and Yellow Belt training programs for Private Companies, major Government Linked Companies (GLCs) in Malaysia and many other Government Agencies.



Dr. Muraliraj – Expert in Lean Six Sigma, Process Improvements and Lean Enterprise Solutions

Dr. Muraliraj is a Master holder in Economics (Macroeconomic Policy Formulation) from University of Malaya, Malaysia. He continued to study for his doctorate and was awarded with a PhD in Quality & Operations Management, Lean and Six Sigma.

Specialised in process mapping, optimization, cost reductions, deploying process excellence strategies, Dr. Muraliraj has been involved in process excellence projects, performance improvements, and change management in shipping, oil and gas, engineering and IT industries for more than 5 years.

His most recent success is in the initiation of Lean and Six Sigma in a PETRONAS in-house engineering service provision company, where he trained and coached 26 executives in 13 branches of the company in training and awareness alongside improvement opportunity identification in each branch.



Mr. Mohammad Faisal Abdul Hamid – Expert in Lean Six Sigma Specialized in Manufacturing, Process Improvements

Mr. Faisal graduated from University Technology of Malaysia (UTM), Malaysia with Bachelors in Chemical Engineering and later pursued his Masters in Business Administration at University Utara Malaysia.

He started his career as an engineer in a renowned MNC and was later enrolled in Six Sigma and Lean as a practitioner and was selected as a trainer. His role as senior staff allow him to work with front line and middle management. While working as a coordinator in Innovation Team, he was liaising with top management such as Factory Managers and Directors and had contributed to establishing company strategies toward achieving the mission & vision.

While enduring his career as continuous improvement specialist he was extensively involved in process improvement initiatives, Six Sigma and Lean Manufacturing. He has profound experience in manufacturing, engineering, and training.

Ms. Prashena Nair – Experienced LSS Deployment, Business and Transactional Process



Ms. Prashena Nair is a graduate from University Malaya and holds a Master Degree in English Language Education. She is certified as a Six Sigma Black Belt professional, facilitating in the use of lean and six sigma tools in business and transactional process to achieve tangible results.

Results-oriented with 5 years of notable performance, Prashena has been constantly referred to as a mentor from the top management & board of directors for immediate results with the capability & efficiency of achieving profit earlier than committed during the Oil & Gas projects.

Prashena has been coordinating regional projects includes improvising manufacturing and technical processes to develop six sigma processes to serve the clients demands and requirements, providing the clients with process based solutions, to offer defect-free, and improved quality functions, serving the clients with the industry's best practices and processes to satisfy their process requirements, implementing highly advanced functions and applications, to minimize downtime losses and elimination of defects to improve quality and assisting the clients to achieve the break through results, and to help them achieve industry benchmarks.

Mr. Zil Kamal Mokhtar - Experienced LSS Deployment in GE Aviation & Collins Aerospace



Mr. Zil Kamal graduated from Imperial College of London with Bachelors in Aeronautical Engineering. He started his career as an engineer in Malaysia Airlines and later in GE Aviation and Collins Aerospace. He was awarded Lean Six Sigma Black Belt by GE Corporate as recognition to his demonstrated in-depth knowledge and proficiency in Lean Six Sigma methodology and successful completion of multiple high impact business projects in aircraft engine MRO and component repair plant.

He was also awarded Achieving Competitive Excellence (ACE) certification by Collins Aerospace in recognizing his effort and knowledge in increasing productivity and improving quality in aircraft component manufacturing. During his career in the Top 100 Fortune companies, he was exposed to 'Work Out' program that laid the foundation of successful Six Sigma program and culture. He was actively involved in process improvement activities, customer centric initiatives and quality improvement program.

Who Should Attend

Chief Executive Officers, Managing Directors, Executive Officers, General Managers, Managers, Executives & Others

Departments

Business Process Improvement, Change Management, Transformation Dept, Continuous Improvement, Project Mgt, Contract Dept, Innovation Dept, Commercial Dept, Business Development, Strategic Planning, Human Resource, Finance & Others.

Accreditation

Meridian Biz Management (MBizM) is an Accredited Training Organization, Curriculum Provider and Examination Centre by IASSC (International Association for Six Sigma Association) and CSSC (Council for Six Sigma Certification). IASSC is a professional association dedicated to growing and enhancing the standards within the Lean Six Sigma community. CSSC is a professional accreditation body within the Lean Six Sigma industry.